



Photo: Shira Bézalel

# Design Brief

RESILIENT

BAY AREA CHALLENGE

BY

DESIGN

**Resilient by Design** is a collaborative research and design initiative that connects design leaders to community members and local and national experts. In this challenge, ten teams of architects, engineers, designers, and other experts will work alongside community members and local government to identify critical areas along the San Francisco Bayfront, and propose exciting new solutions that will strengthen our region's resilience to sea level rise, severe storms, flooding and earthquakes.



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# Introduction & Overview

**Resilient by Design | Bay Area Challenge** is a collaborative research and design initiative that brings together local, national, and international design experts with community members and local leaders. The challenge will develop innovative solutions to address the effects of sea level rise, severe storms, flooding, and earthquakes in communities around the San Francisco Bay. This initiative is based on **Rebuild by Design**, the award-winning model for bold public-private collaboration that brought innovative design solutions to areas impacted by Hurricane Sandy in the New York region.



Photo: SPUR

Resilient by Design builds on a well established Bay Area commitment to strengthen regional resilience by preparing communities to not only survive shocks and stresses, but also to thrive through these experiences. A shining example is the San Francisco Bay Restoration Authority, which was created by the California Legislature to raise and allocate local resources for the restoration, enhancement, protection, and enjoyment of wetlands and wildlife habitat in the Bay. After placing Measure AA on the June 2016 ballot, residents of the nine-county San Francisco Bay Area voted with a 70% majority to pass it. This measure is a \$12 parcel tax, which will generate approximately \$500M over the next 20 years to fund shoreline projects that will protect and restore the Bay. Efforts like these are bolstered by city investments – Oakland, Berkeley, and San Francisco have each released Resilience Strategies as a part of **100 Resilient Cities** – pioneered by the Rockefeller Foundation. These cities are advancing critical knowledge and leading citywide and regional dialogues, to provide new approaches to problem solving to build more resilient communities.



In this challenge, ten teams of architects, engineers, designers, and affiliated experts will be selected to take part in an advanced, design-driven investigation of the social and ecological vulnerabilities around the Bay. Learning from community members and issue area experts, Design Teams will identify critical vulnerable areas along the Bayfront and propose exciting, design-driven solutions to strengthen our region’s resilience to challenges that exist today as well as future sea level rise, severe storms, flooding and earthquakes.

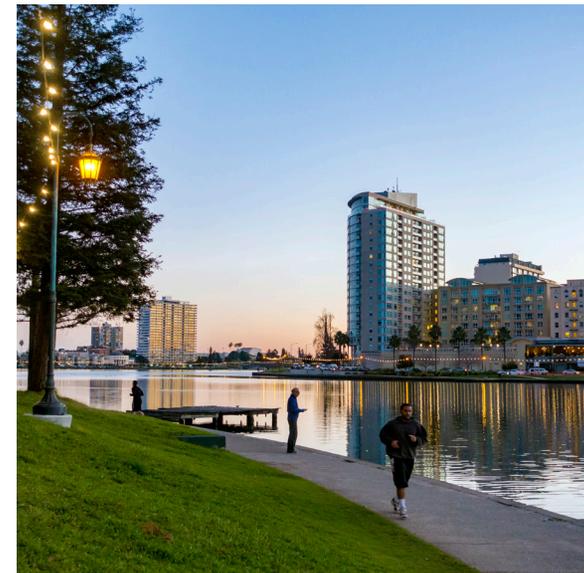
Resilient design solutions will also reflect an understanding of the connections between our region’s existing and future vulnerabilities and the built environment. Examples of these connections could include the links between land-use decisions and health outcomes; or shoreline development and the loss of wetlands and wildlife habitat.

Resilient by Design is different from other design competitions. The challenge is designed as a journey to foster collaboration and leadership while also addressing big challenges our communities face now and in the future. The challenge provides an opportunity to advance the profession's knowledge base in the rapidly evolving area of resilience while listening, engaging, and elevating the voices of residents and neighborhoods along the San Francisco Bay shoreline.

## Challenge Objectives

The challenge seeks local, regional, and international knowledge to create ten design projects that will:

- Combine implementable and creative design-driven ideas with technical expertise;
- Reflect rigorous research and a strong understanding of ecosystems, local community, and government challenges;
- Inspire collaboration, connection, and coordination across the region; and
- Prepare communities for the future by addressing ecological, economic, and social vulnerabilities that exist today.



# Detailed Timeline



## Challenge Launch: May - August 2017

The challenge launch includes the release of the Design Brief as well an open call for **Site Ideas**. This call is an opportunity to identify the Bay Area’s most vulnerable ecosystems, infrastructure, and communities along the shoreline. We’re asking community members, local government, and interested organizations to share Bay shoreline areas that could benefit from creative and innovative design energy.

- May 31** Design Brief issued; open call for site ideas launched
- Jun 16** Information session for potential bidders (in-person and online)
- Jul 7** Design Team submissions due
- Late Jul** Jury reviews submissions and selects ten Design Teams
- Early Aug** Announcement of the ten selected Design Teams

## Collaborative Research Phase: September - December 2017

Ten selected Design Teams will participate in a three-month Collaborative Research Phase, working closely with Resilient by Design staff and the **Research Advisory Committee**. By participating in this phase, Design Teams will gain a strong understanding of the latest estimates of climate impacts and the threats they pose to San Francisco Bay’s ecosystems and communities. Teams will engage with experts on the issues facing our communities—from future flooding, seismic, and sea level rise risks, to existing economic, transportation, and social and demographic inequities.

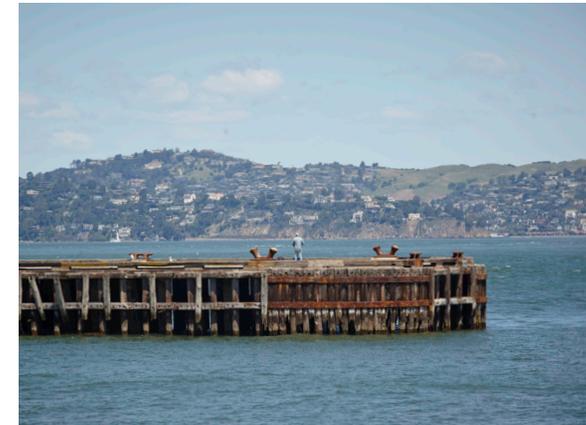
The Collaborative Research Phase will include engagement with community members as well as government leaders and relevant experts to share experiences, insights, and priorities for their areas. Design Teams will also drive self-directed research to develop their proposed conceptual focus for the challenge. With this knowledge, Design Teams will learn from community perspectives and be inspired to develop responsive plans for existing and future needs. Design Teams can expect to integrate feedback into their research from local jurisdictions, the public, and implementing government agencies. At the kickoff of this phase, Design Teams will receive a briefing package, including data and resources related to the ecological and social resilience of the Bay Area.

At the end of this phase, each Design Team must submit three to five “Design Opportunities.” Design Opportunities must reflect the team’s conceptual approach as well as key findings from the Collaborative Research Phase. Design Opportunities are defined as key projects that best utilize the Design Team’s expertise, and that have the potential for maximum impact by addressing the region’s multiple vulnerabilities. Depending on their expertise and



approach, Design Teams have the flexibility to propose the scale of these opportunities, which may range from site-specific, city-scale, multi-jurisdictional, or a Bay regional system. These projects should serve as models for other places in the Bay Area and beyond with similar challenges.

Teams will present their Design Opportunities at a public event. The Research Advisory Committee will evaluate each of the Design Opportunities and select only one for each team to further develop in the Collaborative Design Phase. This matching process will ensure that projects will be distributed around the entire nine counties in the Bay Area. Resilient by Design reserves the right to direct a team's proposed opportunity to a geographical site in order to achieve a bay-wide reach.



Tours and programming will be scheduled to take place on the dates below in the Bay Area. There will be time built-in during these dates for independent research, as well as collaborative learning. At least one team member is required to attend the challenge activities during the designated times in this process.

- Sep 11-15** Tours and panel discussions (Includes a public event with Design Teams)
- Oct 2-6** Tours and panel discussions
- Oct 16-20** Tours and panel discussions (Includes a midway design critique)
- Nov 1-3** Tours and panel discussions
- Nov 15** Each Design Team publicly presents three to five Design Opportunities
- Nov 15-22** Public input on design concepts accepted. Attendance not required.
- By Dec 8** Research Advisory Committee matches one Design Opportunity to each team

## Deliverables

- Three to five concepts from each design team that warrant further development if selected;
- Correlating research report on the Design Team's analysis process and findings for the region;
- Public presentation by each Design Team on their concepts;
- 2-4-minute video, animation or slideshow of each concept
- Design presentation boards for display; one board per concept (24" x 36"). Each board/concept must stand on its own; and
- 500-word description that accompanies renderings of each concept for the challenge website



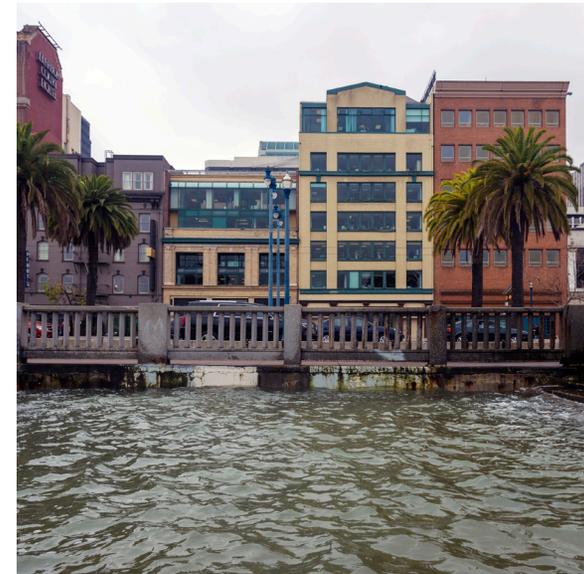
Design Teams will receive \$100,000 USD at the completion of Collaborative Research Phase. Teams completing the deliverables for the Collaborative Design Phase will receive an additional \$150,000 USD, for a total payment of \$250,000 USD. There will be no reimbursable expenses above this amount.

## Collaborative Design Phase: December 2017 - May 2018

The Collaborative Design Phase will provide the opportunity for teams to further develop their designated Design Opportunity. Design Teams will integrate their Collaborative Research Phase findings and analysis into the design process. Projects will be located in areas where research has shown vulnerabilities, and where there is demonstrated strong local governmental and community support for implementing design-driven innovation and creative solutions.

While the Design Teams will lead this work, this phase will also involve a facilitated, iterative community engagement process. This process will inform a creative, innovative, and inclusive design approach and will build support for eventual implementation. Teams will collaborate with community and elected leaders to leverage existing knowledge. Depending on the selected design and geographical area, this outreach may include residents, community-based organizations, businesses, landowners, elected officials, and the implementing or permitting government agencies. The challenge will also create innovative community events as a way to build interest and support of the project.

Design solutions must effectively address critical issues related to climate change, flooding and storm surges, sea level rise, and/or seismic events, while also creating benefits that will increase the ecological and social resilience in the Bay Area. Concepts should also be in accordance with environmental assessment conditions and other constraints. Design concepts are expected to comply with applicable policies, laws, and regulations.



In addition to design concepts, teams will be expected to propose a strategy for implementation that identifies the partners, funding, and timeframe necessary to advance the project after the challenge closes. Design Teams will have access to expert Resilient by Design partners in sectors from public finance to community engagement. These experts will assist in ensuring the engagement is productive and meaningful for all participants. Moreover, teams will work with professionals to develop a funding or financing plan for their final project. The project's financing plan will help set up the project for future successful implementation.

By the end of the challenge, this process will result in ten implementable conceptual solutions with ingrained community ownership that respond to the effects of climate change, sea level rise, flooding, and earthquakes.

The **Jury** is prepared to evaluate the final design proposals (based on criteria provided during the research phase) and identify winning project(s). A generous awards program to honor the winning project(s) is currently in development, and will be publicly announced as soon as the details are confirmed.

Awarded teams can expect to be in the public spotlight and to receive local and international press for their projects. Additionally, it is likely that some or all of projects will continue to be shown in design and architecture exhibitions around the world as demonstrative examples of resilience designs.



Teams are to be notified of specific dates required to attend in the Bay Area at a later date. The following is an overview of activities as the challenge wraps up in May 2018.

- Public event with Design Teams, governmental leaders, community leaders, and the Jury
- Jury evaluates design solutions, designates winning designs, and provides feedback to Design Teams
- Announcement of winning designs
- Design Teams finalize their proposals based on the Jury feedback and submit revised final projects to the challenge



## Deliverables

Presentation at a public event and to the Jury. Deliverables to be reviewed by the Jury include:

- Final recommended design
- Implementation plan including a strategy for financing, stakeholder support, and a regulatory path

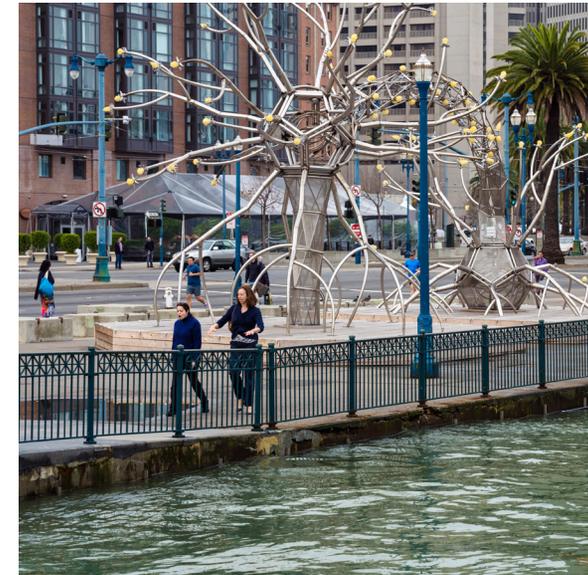
*NOTE: Funding has not been identified for the implementation of these designs. Resilient by Design will work closely with Design Teams to ensure a plan is in place to move the projects forward upon completion of the challenge. Winning the challenge does not guarantee that Design Teams will be contracted for the procurement of services. Final contracting decisions will be made solely by the site owners/controllers, such as governmental agencies, not Resilient by Design or its partners.*

# Request for Qualifications

## How to Apply

Applicants must submit a package for the Resilient by Design challenge by 5:00 pm Pacific Time on Friday, July 7, 2017. To electronically upload your application in response to this Design Brief, please visit the challenge's [website](#).

Proposals should be no longer than 15 one-sided pages (format US Letter), including text, images, drawings, and the cover sheet. Font size should be at least 11 point. Total application size must be under 1GB, excluding the video described in the Conceptual Approach Requirements on page 15. Teams are invited to submit their qualifications with no entry fee.



## Required Submission Materials

1. Design Team Qualifications
2. Design Team Conceptual Approach

# 1. Design Team Qualifications

- Design Teams are required to have a lead or co-lead architecture/design firm, and to demonstrate professional expertise in several of the following fields: infrastructure engineering, landscape design, urban design, architecture, land use planning, communications, public finance, real estate, economic development, ecology, hydrology, water safety, transportation, community engagement, environmental sustainability, project management, finance, arts, graphic design, industrial design, or other disciplines as appropriate. Additionally, at least one member on the team must be based in the Bay Area.
- Applicants are encouraged to show demonstrable experience in interdisciplinary research, analysis, and design—especially related to physical impacts on ecosystems, economies, and communities on a regional scale.
- All levels of experience are encouraged to apply in order to attract innovative thinking and new approaches. At least one team member must have experience working with publicly funded projects.
- Firms and organizations may be represented on multiple selected teams, but their individual staff members are limited to be represented on one team. If two teams are selected who have representatives from the same firm, legal firewalls will be created.
- Design Teams may add new team members after the research phase, particularly if the team feels there is a gap of the skill-sets needed as they refine their design focus. All additions must be requested in writing and are subject to approval by Resilient by Design.



## Qualification Requirements

Summary of the team's strengths and relevant experience (2-3 pages):

- Designate the Design Team name; team lead firm and primary contact, as well as a primary contact for each member firm/organization.
- Provide a narrative summary of the team's collective strengths and experience relevant to the goals of the challenge, and to the team's conceptual approach. Clearly articulate each team member's specific contribution to this effort and the interdisciplinary strength that distinguishes the team. Discuss past collaborative efforts among team members, if applicable.

Selected relevant projects and expertise (3-6 pages):

- Submit highlights of previous work relevant to the goals of the challenge and to the team's research focus and design approach. Include both visual and non-visual examples. Also, include examples, if applicable, of designs implemented in a complex regulatory environment such as San Francisco Bay. Do not include links to external documents.
- Demonstrate examples of direct involvement and support of vulnerable communities. These communities can be defined as groups that have a history of disproportionately less representation in environmental policy and/or projects, and are most economically and environmentally impacted by heavy industrial activity and development, and are most vulnerable to climate-related impacts due to lack of access to resources that can bolster community resilience.



## 2. Design Team Conceptual Approach

Building resilience in the Bay Area will require a layered approach and a deep understanding of the issues the region faces in adapting to a changing climate. Design Teams' ability to propose innovative and effective approaches to address those issues is essential to the success of this challenge. This section is the opportunity for Design Teams to describe in detail how they will collaboratively approach their investigation of vulnerabilities around the Bay and begin to think through solutions.

The issue areas below provide some guidance on the particular challenges facing the Bay Area that need to be addressed in order to create a more resilient future. Selected teams will have a deep understanding and proven track record of incorporating some or all of the issue areas below into design.



- **Social Equity and Environmental Justice**

Communities most at risk to the effects of flooding, severe storms, climate change, and earthquakes are often low-income and have historically been underrepresented in the planning processes of large-scale infrastructure projects and community development investments.

- **Environment/Ecosystems**

The critical balance between ecological systems and the region's increasing urbanization has always been fragile and puts the health of the Bay at risk. Climate change exacerbates that risk, threatening ecosystems and wildlife habitats. Nature-based solutions can protect ecosystems and enhance habitat, while playing a role in protection of Bay Area communities from climate change impacts.

■ **Governance**

The Bay Area is generally considered a nine-county region, but there are few opportunities or requirements for jurisdictions (cities, counties and special districts) to work together on pressing public policy issues. Climate impacts will not be limited to jurisdictional boundaries, meaning some design solutions need to cross jurisdictions.

■ **Infrastructure**

Many aspects of the Bay Area’s infrastructure are at risk from flooding, storm surges, sea level rise and earthquakes. The impact from transportation, wastewater treatment plants, housing stock, and critical utilities being severely damaged would reverberate throughout the regional economy.



**Conceptual Approach Requirements**

- 2-4-page written narrative to focus on the applicant’s conceptual approach and how it could be accomplished, considering the goals of this challenge.
- 3-5-minute video, animation or slideshow that features the applicant’s creative and innovative vision, and approach for participating in Resilient by Design. Acceptable video formats include MP3, AVI, MOV, MPG, and MP4. The video should be uploaded to YouTube and be unlisted. There will be a field to link to the video in the application submission form.

Please visit the challenge website to learn more about the [Request for Qualifications](#).

## Team Selection

A Jury of local and international interdisciplinary experts will choose ten teams to participate in Resilient by Design. The **Jury** will identify the participating Design Teams based on the following criteria:

1. Team composition: members demonstrated excellence in respective disciplines; depth of interdisciplinary experience; capacity to work collaboratively; and cultural competency and demonstrated success working with communities;
2. Demonstrated experience in understanding and applying social and scientific research to design projects;
3. Quality, relevance, creativity, and innovation in past work, resulting in out-of-the-box outcomes, as well as proposed in the conceptual approach;
4. Commitment to participatory design and public engagement—particularly to underserved populations; and
5. Demonstrated experience with publicly-funded, built projects especially in a complex regulatory environment such as the San Francisco Bay.



# Challenge Leadership

The Resilient by Design challenge is led by regional leaders who are passionate about fighting climate change in the Bay Area and beyond. Meet our **Executive Board and staff**.

## Jury

The Resilient by Design Jury functions as an expert panel throughout the challenge process. They will provide critical input at the challenge launch and final Collaborative Design Phase. The Jury will select the participating Design Teams and judge the final designs at the conclusion of the challenge. Jury members do not have a financial interest or professional affiliation with any team that submits their qualifications. [Click here](#) for more information on the Jury.



## Research Advisory Committee

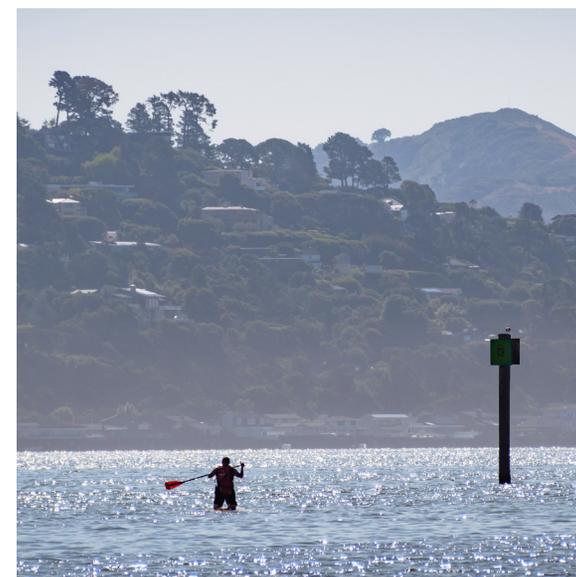
The Research Advisory Committee will work with Resilient by Design and its Executive Board to identify a diverse set of vulnerable locations around the Bay for exploration during the challenge's Collaborative Research Phase, based on best available science and community input gathered through an open call for site ideas. Committee members will reconvene at the end of the Collaborative Design Phase to evaluate Design Teams' three to five Design Opportunities and match them with one site to move forward in the Collaborative Design Phase.

Committee members do not have a financial interest with any team who submits their qualifications. [Click here](#) for more information on the Research Advisory Committee.

Resilient by Design advisors and consultants representing sectors from ecology and environment, public/private finance, and community engagement will be tasked to provide data, knowledge-based resources, and the technical and qualitative support to help Design Teams bring the challenge to life.

Resilient by Design is made possible through the lead support of The Rockefeller Foundation. Additional generous support comes from the Bay Area Regional Collaborative, San Francisco Estuary Institute, Government Alliance on Race and Equity, Rebuild by Design, SPUR, State Coastal Conservancy, Bay Area Council, The San Francisco Foundation and the cities of Richmond, Oakland, San Jose, and San Francisco.

For information and questions, please contact Resilient by Design at [info@resilientbayarea.org](mailto:info@resilientbayarea.org). Questions, along with our response, will be posted on the [Resilient by Design FAQ](#) every two weeks during the submission phase. Visit [www.resilientbayarea.org](http://www.resilientbayarea.org).



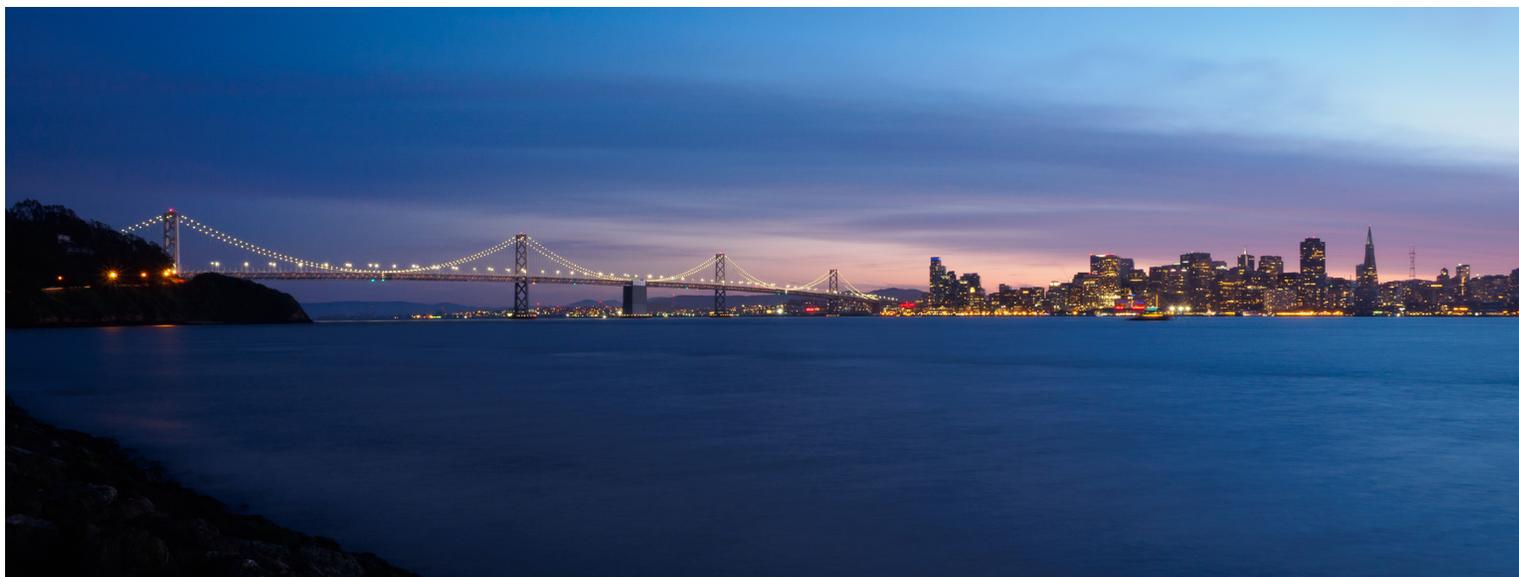
# Rules & Regulations

1. Firms and organizations may be represented on multiple selected teams, but their individual staff members are limited to participate on one team.
2. Design Teams are required to designate one person to receive and distribute its team member payments at the completion of the Collaborative Research Phase and Collaborative Design Phase.
3. Members of the Resilient by Design Executive Board, Jury, and the Research Advisory Committee as well as partners and consultants of Resilient by Design are ineligible to participate on a Design Team. This group may not have a financial interest or professional affiliation with any team who submits their qualifications.
4. Government agencies are ineligible to participate on a Design Team.
5. Any changes to the members on Design Team must be approved by the Resilient by Design Executive Committee or its designees.
6. By submitting this proposal, each Design Team agrees (a) to grant Resilient by Design and its promotional partners all rights of ownership, reproduction, and use of submitted written materials and videos, with full Design Team credit, for any purpose whatsoever without compensation or further permission, including but not limited to an irrevocable and perpetual, royalty-free, worldwide right, in all submitted media and materials to assign, use, publish, edit, adapt, modify, alter, reproduce, distribute, broadcast, display, copyright, create derivatives works or otherwise use materials for non-commercial use and (b) to execute specific consent to such use upon request if required in addition to the terms in this document.



# Team Resources

Team Resources are an additional online resource that provides an introduction to the context and challenges facing the San Francisco Bay Area. It is a starter kit to give Design Teams a sense of the complexity of the region and to help with the development of the teams' conceptual approach. Find the [Team Resources here](#).



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[www.resilientbayarea.org](http://www.resilientbayarea.org)

[#ResilientBayArea](https://twitter.com/ResilientBayArea)